CLEMENTS

proven through performance

Direct Suction Nozzles

User Manual

Manual No. SUC 89540 093
Issue 6

CLEMENTS

Safety

Thank you for purchasing this Clements Direct Suction Nozzle

For your safety it is imperative that this unit only be operated by authorised personnel in accordance with the instructions as described in this manual. Operated in this way, the Direct Suction Nozzle will provide years of service.

Due to continual improvements in product design, the Direct Suction Nozzle may vary in detail from the descriptions in this manual. In the event of further questions please contact your local distributor or BMDi TUTA Healthcare direct.

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Intended Use

To connect suction equipment to a continuous vacuum source terminal unit, for the aspiration of fluids and particulate matter in medical procedures carried out by clinically trained and authorised personnel.

Specifications

Vacuum Range	0 to -100 kPa, 0 to -750 mmHg (Subject to available suction)	
Flow Rate	0 to 35 Litres of Free Air Per Minute	
Gauge	Bourdon Tube type Dual scale, graduated in kPa and mmHg	
Gauge Range	0 to -100 kPa, graduated at 5 kPa 0 to -760 mmHg graduated at 20 mmHg	
Control	Lever styled tap O-Off 90° rotation	
Australian Standard	AS 2103.3 - 1992	
Model	**Gauge**	**No Gauge**
Height	210 mm	135mm
Width	70 mm	60 mm
Depth	50 mm	50 mm
Weight	325 g	220 g
Duty Cycle	Continuous	
Ambient Temperature	+5℃ to 35° C	
Standard Conditions	25℃, Sea Level, 101 kPa	
GMDN Code	14325	
ARTG Number	174688	
Class	Class I (EU Class IIa)	

Transportation and Storage

Environmental conditions for transportation and storage are shown in the following table.

Parameter	Minimum	Maximum
Temperature	10ºC	40ºC
Humidity	60% RH	95% RH
Barometric Pressure	700 mBar	1060 mBar

Warning Symbols Legend

The warning symbols marked on the equipment and their meanings are shown as follows.

Caution, consult accompanying documents

Waste Materials

The contents of the collection jars, suction tubing, bacteria filter, internal exhaust filter may contain biohazard wastes. Handle using safe handling procedures, which may include the use of rubber gloves and eye protection, and dispose of according to local protocols for biohazard materials.

Recycling

At the end of their service life, the Nozzle should be dismantled if necessary, and returned to a local materials recycling centre.

Description

Clements Direct Suction Nozzles are used where simple On-Off control of suction is required. The Clements Nozzles are simple, robust and are designed for applications where direct suction is required in an instant.
The suction control lever is firm and positive, the gauge is clear and accurate
Clements direct suction nozzles are available for connection to most types of wall outlet.

Installation and Operation

Carefully examine the suction controller for any visual signs of damage that might have occurred during shipment.
Attach the suction nozzle to the wall outlet with the index handwheel or relevant connector.

1 Ensure lever is turned OFF.

2 Occlude the inlet port at the bottom of the plastic hosetail.

3 Turn on full vacuum by rotating the control lever to align with body. The reading should be equal to the pipeline vacuum.

Spare Parts

SUC 89771	Ring Index Connector Kit for Wall Suction Products (Hand wheel, 1/8 BSP Threaded Nipple, O-Ring)
SUC 89240 019	Puritan Bennett Connector with 1/8 BSP Thread
SUC 89240 074	BS MKIV Connector with 1/8 BSP Thread
SUC 89250 006	Drager Connector with 1/8 BSP Thread
SUC 80970 001	Plastic Hose Tail with O-Ring (Pack of 20)
SUC 89310 001	Porous Bronze Filter (Pack of 20)
SUC 89660	Duplex Suction Adaptor with Lever
SUC 89661	Duplex Suction Adaptor Without Lever
SUC 80971	Metal Suction Nozzle Assembly with O-Ring
SUC 89540 093	User Manual for Direct Suction Nozzles

Also available are a range of Medical Suction Tubing, Collection Jars, Bung Assemblies, and handpieces

Troubleshooting

Fault	Check	Rectify
No Vacuum / Flow	On / Off Lever	Ensure turned on
	Wall outlet blocked	Refer to engineering
	Body blocked	Strip and clean
	Filter blocked	Clean or replace
	Gauge faulty	Replace
Gauge Faulty	Check against master gauge	Replace
Bronze Filter	Damage or corrosion	Autoclave, wash

Cleaning and Sterilisation

Sterilisation

Do **not** immerse or autoclave unless the gauge, plastic handwheel, and hosetail have been removed.

Cleaning

Clean using a pH neutral disinfectant for wiping or immersion cleaning.
Flush after immersion using distilled water and dry before reassembly of unit.

Cleaning Procedure

Tools and Materials Required

- Allen key set, imperial
- Vacuum grease
- Can of spray, Dow Corning Molykote D-321R Sealer
- Hand press and fixture for holding body

Disassembly Procedure

1. Remove unit from wall.
2. Remove the hand wheel by inserting an allen key into the brass nipple in the centre of the hand wheel. Make sure the allen key is pushed home into the brass nipple before unscrewing.
3. Remove the gauge.
4. Unscrew the plastic nozzle and remove the bronze filter. Replace the bronze filter if damaged or discoloured
5. Remove the Sel-Lok pin , disc springs and O-ring using a hand press and fixture.
6. Push the plug out by gently twisting and pushing. Once the plug is out, gently clean the plug with a soft brush using a degreaser. Wash and blow-dry. Use the same care when cleaning out the bore in the nozzle body.
7. Lightly coat the plug with Molykote surface spray and let dry.
8. Apply a light coat of vacuum grease to the body bore.
9. To assemble - reverse the order.
10. To test - lever should be firm and smooth to turn, vacuum when tested should read the same as the vacuum source, flow should have a max of 2-3 lpm loss only.
11. Clean any vacuum grease off the body.

Warranty

BMDi TUTA Healthcare Pty Limited ("BMDi TUTA Healthcare") warrants that this product is free from defects in workmanship and materials for a period of 12 months from the date of shipment by BMDi TUTA Healthcare or its authorised agent to the purchaser. Subject to the conditions of this warranty, if the product fails to operate for any reason within the warranty period and the product is returned to the place of purchase at the purchaser's expense, BMDi TUTA Healthcare will repair or replace the product free of charge.

If a valid warranty claim is made within 30 days from the date of shipment, then BMDi TUTA Healthcare will also reimburse the purchaser for reasonable freight costs in returning the product to the place of purchase.

Conditions of Warranty

1. The product must be returned to the place of purchase with proof of purchase.
2. This warranty is only available to the original purchaser of the product.
3. The product must not have had its serial number removed, defaced or changed, its casing opened, its power supply altered or have been tampered with in any other way.
4. This warranty does not cover :
   - inadequate or incorrect site preparation;
   - improper installation;
   - connection to the wrong voltage;
   - failure of the product due to misuse;
   - the use or operation of the product outside of the physical, electrical or environmental specifications of the product;
   - use in a manner or environment in which the product is not designed to be used;
   - improper adjustment, calibration or operation by the purchaser;
   - the use of accessories including consumables, hardware or software which were not manufactured or approved in writing by BMDi TUTA Healthcare;

- any modifications of the product which were not authorised in writing by BMDi TUTA Healthcare;
- any contamination or leakages caused or induced by the purchaser; and
- inadequate or improper maintenance of the product.

5. This warranty does not cover normal wear and tear.
6. BMDi TUTA Healthcare will not be responsible for damage or loss caused during shipping.
7. In Australia, apart from any warranties implied by the Trade Practices Act 1974 all other warranties expressed or implied and whether arising by virtue of statute or otherwise are hereby excluded.
8. Outside Australia, all other warranties expressed or implied and whether arising by virtue of statute or otherwise (including any warranties implied by the Vienna Convention) are hereby excluded.
9. BMDi TUTA Healthcare' obligations under this warranty are limited to the repair or replacement of the product, within the terms of this warranty and the total liability of BMDi TUTA Healthcare for loss or damage of every kind whether arising pursuant to the terms of the sale of the product or otherwise in connection with the product is limited to the amount paid by the purchaser to BMDi TUTA Healthcare for the product.
10. Apart from any liability imposed by Part VA of the Trade Practices Act, BMDi TUTA Healthcare accepts no other liability for any loss or damage occasioned (including consequential loss or damages) in any way as a result of the use of the product.
11. The warranty does not extend to cover damage to the following parts as they are inherently prone to wear :
    - motor brushes
12. This warranty does not extend to cover corrosion due to any cause nor to any damage to painted or anodised surfaces.
13. BMDi TUTA Healthcare will give the purchaser the benefit of any manufacturer's warranty in respect of any components in the product which were not manufactured by BMDi TUTA Healthcare, if such a manufacturer's warranty is available.